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A Brief Summary of Economic Conditions

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IN THIS ISSUE

EUROPEAN WAR has not stimulated—it has diminished—the export demand for farm products. United States exports of tobacco and fruits have been greatly reduced—exports of pork and lard are not up to the volume that would flow normally in a year of large production and low prices—export sales of cotton have been good but have declined recently—little wheat is going abroad. (See table on page 8 for volume of exports during the first 5 months of the war compared with the like period a year earlier.) * * * Principal effects of the war have been to increase domestic demand for farm products through increased industrial production in anticipation of war requirements. This has helped to support prices of some farm products and the income of farmers during recent months. The outlook is less propitious now that industrial production has declined. * * * There seems little in the picture now that would justify any expansion in farm production this year in excess of domestic—plus limited export—needs for foods and fibers.

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Commodity Reviews

DEMAND: Downturn

CHANGES in conditions affecting the domestic demand for farm products have been adverse since the turn of the year in contrast to the sharp improvement of late 1939. Though the relapse in industrial activity is regarded as temporary some further decline is expected before the downward trend is reversed.

The tendency of changes in consumer income to lag behind and be less pronounced than changes in industrial production, and the effect of weather conditions in restricting current supplies of some farm products, have prevented any general reflection of the industrial downturn in farm product prices. However, industrial commodity prices have receded along with the downward slant in industrial production and similar pressure on prices of some farm products may be noticeable before industrial activity again turns upward.

The present downward trend in conditions affecting the domestic demand for farm products is a natural aftermath of the period of feverish industrial activity necessitated in filling the heavy orders booked immediately following the outbreak of war in Europe. A large portion of such orders has now been filled and customers' inventories have thereby become sufficiently large to protect them more adequately against possible major wartime price advances.

It is important in viewing future demand prospects to keep in mind that the principal inducement which caused business men to place advance orders last fall—possibility of a major war-inspired commodity price advance—is still in the picture. While this remains true it is probable that inventories will be maintained somewhat above levels which would be considered safe in the absence of war. Abandonment of this policy on any large scale could result in a more pronounced and prolonged decline in industrial production than is now anticipated.

Though steel mills have cut schedules rather drastically since December and construction contracts awarded have declined, automobile production and cotton consumption have been of record high proportions. Some readjustment in cotton textiles will be necessary unless new orders appear in better-than-expected-volume shortly, but the automobile outlook is more satisfactory. P. H. BOLLINGER.

INCOME: Increase

Cash farm income from marketings and Government payments was smaller in January than in December, but considerably larger than in January last year. The increase from a year ago resulted from higher prices of farm products, a larger volume of marketings, and increased Government conservation and price parity payments. Large quantities of corn were placed under Government loan in January, and more than 13 million bushels of wheat under loan were redeemed for sale by farmers at prices averaging about 15 cents a bushel above loan values.

February income also was probably larger than in February last year when prices of farm products were declining. Continuation of farm products prices around current levels would mean larger farm income in the first 6 months of 1940 compared with the like period of 1939. Cash farm income from marketings and Government payments in the first 6 months of 1939 totaled 3,533 million dollars.

Month and year	Income from marketings	Income from Government payments	Total
January:	*Million dollars*	*Million dollars*	*Million dollars*
1940	607	126	733
1939	593	41	634
1938	643	17	660

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PRICES: Disparity

Prices of principal farm products in February continued below the levels that would give farmers a purchasing power equivalent to that in 1910–14. The average of prices received by farmers was around the pre-World War level of 100, but prices paid by farmers for commodities used in production and for living averaged 122 percent of the base period.

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products[1]
1939			
February	92	120	77
March	91	120	76
April	89	120	74
May	90	120	75
June	89	120	74
July	89	120	74
August	88	119	74
September	98	122	80
October	97	122	80
November	97	122	80
December	96	122	79
1940			
January	99	122	81
February	101	122	83

[1] Ratio of prices received to prices paid.

The last column in the accompanying table—Prices of Farm Products—shows the prices that farmers would have to receive to give them a purchasing power equivalent to that in the pre-war period. Wide disparities in the average of prices actually received in February are shown for cotton, corn, wheat, hogs, and eggs.

The only products selling higher than "parity" in February were wool, lambs, beef cattle and veal calves.

WHEAT: A Dollar Again

Wheat prices strengthened in late February and again topped a dollar in domestic markets. Principal factors were an increased demand for wheat and flour, renewed concern over poor United States winter wheat prospects, and the likelihood of cold weather damage to wheat in Europe. It was reported that the Argentine crop would be the smallest since 1916.

No. 2 Hard Winter wheat was selling at 104 cents a bushel in Kansas City on February 23, compared with about 95 cents a bushel at the beginning of the month, and with 99 cents on January 15. No. 1 Dark Northern Spring wheat averaged 108 cents per bushel

Prices of Farm Products

Estimates of average prices received by producers at local farm markets based on reports to the Agricultural Marketing Service. Average of reports covering the United States weighted according to relative importance of districts and States.

Product	5-year average, August 1909–July 1914	February average, 1910–14	February 1939	January 1940	February 1940	Parity price, February 1940
Cotton, lb.—cents	12.4	12.3	8.2	10.1	9.97	15.87
Corn, bu.—do	64.2	60.1	43.9	53.2	54.7	82.2
Wheat, bu.—do	88.4	89.2	56.9	84.5	84.1	113.2
Hay, ton.—dollars	11.87	12.02	6.78	7.90	8.10	15.19
Potatoes, bu.—cents	69.7	66.3	64.6	74.0	75.2	86.5
Oats, bu.—do	39.9	39.8	26.2	36.3	37.7	51.1
Soybeans, bu.—dollars	(1)	(1)	.69	1.01	.96	----------
Peanuts, lb.—cents	4.8	4.9	3.4	3.56	3.60	6.1
Beef cattle, cwt.—dollars	5.21	5.11	6.86	6.94	6.84	6.67
Hogs, cwt.—do	7.22	7.12	7.21	5.18	4.97	9.24
Chickens, lb.—cents	11.4	11.1	14.2	12.0	12.2	14.6
Eggs, doz.—do	21.5	23.7	16.7	18.3	20.2	[2] 30.6
Butterfat, lb.—do	26.3	27.4	24.9	30.0	29.7	[2] 34.4
Wool, lb.—do	18.3	18.5	20.2	28.1	27.8	23.4
Veal calves, cwt.—dollars	6.75	6.77	8.73	8.95	8.80	8.64
Lambs, cwt.—do	5.87	5.95	7.37	7.57	7.61	7.51
Horses, each.—do	136.60	137.00	83.10	78.30	78.20	----------

[1] Prices not available.

[2] Adjusted for seasonality.

on February 23, compared with about 101 cents on February 1, and with 103 cents on January 15.

Gulf prices of Hard Winter wheat continued about 25 cents per bushel above export parity, and prices of domestic spring wheat at Buffalo were only about 13 cents lower than approximately the same quality of Canadian wheat, c. i. f., duty paid, at Buffalo.

Stocks of wheat in the United States on January 1 totaled 615 million bushels compared with 654 million bushels on the same date last year. Exports of wheat and of flour made wholly of United States wheat totaled 30 million bushels for the July–December period, compared with 46 million bushels in the same months of 1938. Domestic disappearance during this period was 364 million bushels compared with 385 million bushels a year earlier.

COTTON: Prices Up

Cotton prices during February regained much of the January decline, and the average for 10 spot markets on February 29 was 10.89 cents for Middling 1⅛ inch, compared with 10.49 cents a month earlier, and with 8.96 cents on February 28 last year. Principal supporting factors were the continued high level of domestic consumption and the large volume of exports.

Exports totaled 560,000 bales in the first 3 weeks of February as contrasted with 190,000 bales in the like period last year. Exports in January had totaled more than 1,000,000 bales—the largest for that month since January 1927. Exports for the first half of the 1939–40 season approximated 4,160,000 bales, compared with 2,192,000 bales in the like period of 1938–39, and with 3,832,000 bales in 1937–38.

Domestic mill consumption continues at an unusually high rate despite some slackening since the beginning of 1940. Consumption in January, totaling 730,000 bales, was the highest on record for that month. Total for the first half of the 1939–40 season was 4,042,000 bales, compared with 3,397,000 bales in the same period a year earlier, and with 3,022,000 bales average in the preceding ten years.

Domestic consumption may decline in the next few months, but the total for 1939–40 is expected to be close to the high record of 7,950,000 bales established in 1936–37.

LIVESTOCK: Inventory

Expansion of the livestock industries during the last 2 years was reflected in January 1 inventories showing total numbers of beef cattle, milk cows, sheep, hogs, chickens, and turkeys on farms the largest in several years. Continued decreases in numbers of horses and mules were reported.

Beef cattle, milk cows, and sheep averaged higher in farm value this January 1 than a year earlier. Other livestock — hogs, chickens, turkeys, horses, and mules — averaged lower. The combined value of all was computed at 5.182 billion dollars, compared with 5.163 billion in 1939, and with 4.656 billion average for the 10 years 1929–38.

Hogs showed the largest increase in numbers and the biggest decline in value during the past year. There were 58.3 million hogs valued at 454.3 million dollars this January 1, compared with 49.3 million hogs valued at 552.6 million dollars a year earlier. Average for 1929–38 was 51.9 million hogs valued at 479.8 million dollars.

All cattle, estimated at 68.8 million head, were valued at 2.790 billion dollars, compared with 66.8 million head valued at 2.568 billion dollars in 1939. Average for 1929–38 was 66.3 million head valued at 2.218 billion dollars. Sheep totaled 54.5 million head valued at 342.9 million dollars on January 1, compared with 53.8 million head valued at 309.3 million dollars in 1939, and with 52.3 million head valued at 299.3 million dollars average for 1929–38.

CATTLE: Marketings Up

Feature of the cattle situation in recent months has been the increased marketings of short-fed cattle. This reflects partly the high price of feed in relation to cattle prices. Feed prices in general are higher than at this time last year. Since cattle prices are not correspondingly higher, it appears that returns from cattle feeding will be less favorable in the first half of 1940 than in the like period of 1939.

BAE reported in late February that although the stronger consumer demand for meats in 1940 than in 1939 will be a strengthening influence to prices on all kinds of slaughter cattle, the effects of this upon cattle prices will be offset or more than offset by the larger total meat supplies. Many more cattle were on feed in the Corn Belt and Western States this January 1 than last.

For the last 2 years there has been an increasing tendency to hold back breeding stock on farms and ranches to increase cattle numbers. The result was that in 1939 steer slaughter was larger than cow and heifer slaughter for the first time in 6 years. Possibility of a continued decrease in marketings of cows and heifers is seen this year, provided range and feed conditions are favorable.

The strong demand for stocker and feeder cattle was a strengthening factor in the price of lower grades of slaughter cattle during the past year. This demand may not be so strong in 1940.

HOGS: Prices Down

Hog prices declined and corn prices advanced during the past month—continuing an unfavorable price ratio that is being reflected in the marketing of lighter weight hogs. In early February the hog-corn price ratio at Chicago was 8.9, compared with 15.8 a year earlier. The average for the past 20 years is about 11.6. A ratio below this figure generally discourages the feeding of corn to hogs.

Slaughter supplies of hogs have been declining seasonally, but marketings are much larger than at this time last year. Seasonal increases in marketings will be registered again in late spring and early summer when the movement of last fall's pigs gets under way in large volume. The 1939 fall pig crop was 16 percent larger than the fall pig crop of 1938.

Consumer demand for meats during late spring and early summer may be below current levels, but above those of a year earlier. A big question is whether the better demand this summer than last will offset the larger volume of marketings. Another big question is the volume of exports of pork and lard. It was reported last month that Great Britain had suspended purchases of bacon and hams from the United States. A quota on Canadian imports of fresh pork from the United States recently was adopted by the Canadian Government.

LAMBS: Spring Prospects

Early lambs were developing rapidly in late February with prospects that shipments from California would be later this spring than last when poor pastures forced early marketings. Some loss of early lambs in January was reported in Texas because of unfavorable weather, but spring feed prospects are favorable.

Meanwhile, it is expected that marketings of fed lambs during the remainder of the fed-lamb marketing season ending about May 1 may be no larger than in the like period of 1939. The number of lambs left in feed lots in western feeding areas was about 10 percent smaller in early February this year compared with last. A major part of the movement of fed lambs from the Corn Belt was about completed during February.

Slaughter supplies of sheep and lambs have been somewhat larger this winter than last, but prices were supported by a stronger demand for meats and by higher prices for wool

than a year earlier. Marketings of fed lambs also were larger than a year earlier, reflecting chiefly the increase in the number fed in the Corn Belt.

WOOL: New Season

A new wool marketing season begins on April 1 under more favorable conditions than at the same time last year. The carryover of wool is smaller this season than last, consumer demand is better, prices are higher. An uncertain factor is the volume of wool mill consumption in 1940. Mill consumption was unusually large in 1939, and may be smaller this year.

Chief market interest in recent months has been in foreign wools. Production in Australia has been estimated at 1,090 million pounds—the largest on record for that country—for the 1939–40 season which ends on June 30 next. In late January the British Wool Control increased from 22.5 million pounds to 37.5 million pounds the allotments of Australian wool available to United States importers.

United States production of wool has not changed much in recent years and in 1939 totaled approximately 440 million pounds. Supplies were supplemented by heavy imports last year to meet the requirements of mills in a volume of consumption which was the heaviest—except in 1935—in more than 20 years. Stocks of wool in the United States were unusually small at the end of 1939, but imports since then have been large.

OILSEEDS: Prices Up

Oilseeds—cottonseed, soybeans, flaxseed, and peanuts—continue higher priced than at this time a year ago. Principal factors have included the sharp rise in prices of high-protein cake and meal and cotton linters, and strength in prices of linseed oil. Soybean-oil prices were slightly higher early this year than last, but cottonseed-oil prices were lower.

Prospects are that acreages of soybeans, flaxseed, and peanuts will be increased this year, since prices compare favorably with those for competing crops. Increased production of soybean oil and peanut oil would have a depressing effect on prices of food fats and oils; increased output of flaxseed would also tend to depress prices unless the Argentine crop should be small. Surveys in February revealed sharp increases in California and Arizona acreages of flaxseed planted for harvest in 1940.

United States production of fats and oils from domestic and imported materials in 1939—totaling about 9.1 billion pounds—was the largest on record. Nearly 8.4 billion pounds were produced from domestic materials, compared with 8.0 billion in 1938. Consumption of fats and oils exceeded all previous figures, and the supply now on hand is slightly smaller than the high record stocks at this time a year ago.

TRUCK CROPS: Prices Up

Market prices of most vegetables rose sharply as supplies were reduced by the January freeze in Florida and Texas. The only products which failed to share in the advance were carrots, cauliflower, celery, kale, and western lettuce. Most of these crops are produced largely in California in winter and were not affected by the freeze.

Rapid progress in replanting some of the lost acreages in the South was reported in February, but the crops will be late and supplies during March and April will be smaller than in these months last year. Supplies through May, however, may be unusually heavy if the weather is favorable.

Reports in mid-February put the winter crop of snap beans in Florida 55 percent below 1939 figures; production of beets in Texas about 31 percent smaller than in 1939; and early-crop cabbage in California, Florida, and Texas about 19 percent below 1939.

The winter crop of peppers in Florida was cut to 40,000 bushels compared with 1,000,000 bushels produced last year. Production of spinach in the early States was indicated about 16 percent smaller than in 1939.

POTATOES: New Crop

New crop potatoes have been rolling to market at sharply higher prices due to the freeze in south Florida which reduced production prospects more than 650,000 bushels. Market supplies of new potatoes will be much smaller this season than last, until about the middle of April when the north Florida crop becomes available.

Total stocks of 1939 crop potatoes of about 103,000,000 bushels on January 1 were about the same as on that date last year. A reduction of 3,300,000 bushels in the Central late and intermediate States is about offset by an increase of 2,400,000 bushels in the Western States and about 700,000 in the Eastern States.

FRUITS: Supply Reduced

The fruit supply situation has changed markedly in the last 6 weeks. The available supply of citrus fruits is about a third smaller than at this time last year, and of apples and pears slightly smaller than in 1939 despite the sharp reduction in exports this season. Prices of all fruits are considerably higher than they were early in the current season.

Citrus: The citrus crops in Florida and Texas were damaged badly by the January freeze, but prospects for navel oranges and lemons in California were improved. February citrus crop estimates for all States were: Oranges 71 million boxes, compared with 79 million from the bloom of 1938, and with 54 million average for 1928–37; grapefruit 31 million boxes, compared with 44 million in 1938, and with 19 million average for 1928–37.

Apples: Apples have been moving out of cold storage in large volume despite sharply curtailed exports, stimulated by the Government purchases of apples for distribution to persons on relief. February cold storage holdings estimated at 20.3 million bushels were slightly smaller than at the same time a year ago. The Government purchase program was continued in February but in diminished volume in view of the sharp reduction in citrus supplies and the improved prices of apples.

Pears: Relatively large quantities of pears have moved out of storage despite curtailed exports, stimulated by Government relief purchases, the supply situation as to other fruits, and the improved consumer purchasing power this winter compared with last. February stocks totaled 716,000 boxes, compared with 879,000 boxes in 1939, and with 632,000 boxes average for 1935–39.

DAIRY: More Cows

Milk production was adversely affected by the freezing weather in midwinter but is expected to continue relatively large during the remainder of the feeding period as compared with the average of recent years. There are more cows on farms this winter than last. Feeding has been heavy despite higher prices of feed this winter.

The number of milk cows (cows and heifers two years old and over kept for milk) totaled 25.3 million head on January 1, compared with 25.1 million on the same date last year, and with 24.9 million average for 1929–38. The number of yearling heifers kept for milk cows was 5.4 million head compared with 5.1 million in 1939, and the number of heifer calves being kept for milk cows was 5.654 million head compared with 5.684 million in 1939.

A sharp seasonal decline in butter prices occurred during the past month, nevertheless prices are still decidedly higher than at this time a year ago, due to the relatively low level of storage stocks and the general economic improvement in the past year. Cold

storage holdings of butter by Government agencies and the trade on February 1 was the smallest for that date since 1936. Total was 29 million pounds, compared with 111 million pounds on February 1 last year, and with 45 million pounds average for 1935–39.

EGGS: Production Up

Records of receipts of eggs at principal markets indicate that egg production is increasing rapidly from the low level caused by the generally cold weather of late January and part of February. Production of eggs per flock was about 25 percent smaller this February 1 than last, due almost entirely to smaller production per hen. Culling of flocks was unusually heavy during January, so that there were about the same number of layers in farm flocks this February 1 as last.

Prices of eggs advanced sharply as production and marketings declined during the cold weather of January–February. The average of prices to farmers was 20.2 cents per dozen on February 15, compared with 18.3 cents on January 15, and with 16.7 cents on February 15 a year ago. Farm prices of chickens averaged 12.2 cents per pound on February 15, compared with 12.0 cents on January 15, and with 14.2 cents on February 15 a year ago.

Besides the number of laying hens in farm flocks on February 1, there was an unusually large number of pullets not yet of laying age. These pullets may provide the basis for increasing laying flocks in coming months. Crop correspondents reported as of February 1 their intentions to buy about 4 percent fewer baby chicks this year than last.

FRANK GEORGE.

United States: Exports and Imports of Specified Agricultural Commodities, January, 1939 and 1940, and September-January 1938–39 and 1939–40 [1]

Commodity	Unit	January		September-January	
		1939	1940 Prel.	1938–39	1939–40 Prel.
Exports:		*Thousands*	*Thousands*	*Thousands*	*Thousands*
Pork:					
Cured pork [2]	Pound	4,953	12,445	25,374	31,033
Other pork [3]	Pound	3,492	16,142	16,161	38,011
Total pork	Pound	8,445	28,587	41,535	69,044
Lard, including neutral	Pound	28,520	27,988	103,589	116,396
Wheat, including flour	Bushel	12,619	2,650	37,513	19,612
Apples, fresh [4]	Bushel	2,396	244	8,105	2,297
Pears, fresh	Pound	5,370	3,230	127,085	71,910
Tobacco, leaf	Pound	26,866	33,941	271,931	158,937
Cotton, excluding linters (500 pounds)	Bale	303	1,086	2,107	4,176
Imports:					
Cattle	Number	115	70	265	243
Beef, canned including corned	Pound	4,365	8,452	30,897	37,722
Hides and skins [5]	Pound	32,656	30,116	118,373	139,861
Barley malt	Pound	6,344	4,728	38,512	29,510
Sugar, cane (2,000 pounds)	Ton	71	191	836	1,241
Flaxseed	Bushel	2,111	826	7,878	3,456
Tobacco, leaf	Pound	4,765	5,520	23,512	25,810
Wool, excluding free in bond for use in carpets, etc.	Pound	6,334	24,990	23,443	75,193

[1] Corrected to Feb. 28.
[2] Includes bacon, hams, shoulders, and sides.
[3] Includes fresh, frozen, pickled, salted, and canned.
[4] Includes boxes, baskets, and barrels in terms of bushels.
[5] Excludes the weight of "other hides and skins" which are reported in pieces only.

Source: Office of Foreign Agricultural Relations. Compiled from official records of the Bureau of Foreign and Domestic Commerce.

Farm-Mortgage Interest Charges

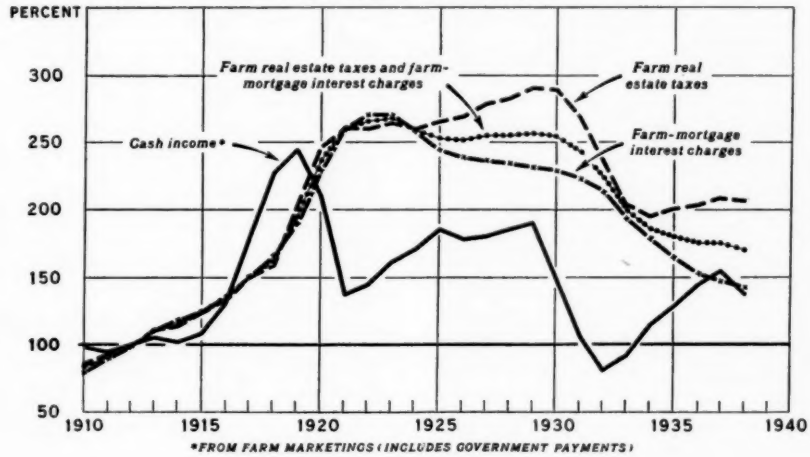
FARM-mortgage interest charges for the year 1938 are estimated at $357,000,000, which is about 3.4 percent less than for 1937 and almost 40 percent less than for 1928. The interest charges for 1938 were only slightly more than half the total for 1922–23, the peak years of farm-mortgage interest charges, and represent the lowest figure for any year since 1916, when the total was $341,000,000. Present indications are that the total farm-mortgage interest charges for 1939 were little changed from 1938.

The accompanying chart shows the trend of farm-mortgage interest charges in relation to the trends of farm real-estate taxes and cash farm income for the period 1910–38. All three series rose sharply in the decade 1910–20, but in the next 2 decades the trends were quite different. Cash farm income fell abruptly in 1920 and 1921, whereas interest charges rose rapidly until 1922. Interest charges on farm mortgages rose in 1920, 1921, and 1922 mainly as a result of the post-1920 rise in farm-mortgage debt, although the level of interest rates rose also during this period. As the post-1920 rise of interest charges also reflected the funding of non-real-estate debt into real estate secured debt, a part of the increase in mortgage interest charges in these years represented a corresponding deduction from the interest charges on non-real-estate debt.

THE decline of interest charges from 1923 to 1933 reflected mainly the downward trend of outstanding farm-mortgage debt although for the country as a whole the average interest rate on farm mortgages declined moderately during this period. Interest charges on farm mortgages declined somewhat more rapidly in the period 1929–32 than in the years immediately preceding, but the decline was very small in comparison with that for cash farm income. After 1933 interest-rate reductions as well as declining farm-mortgage debt contributed heavily to the decline of farm-mortgage interest charges. The large-scale refinancing program of the Farm Credit Administration resulted in substantial interest-rate reductions, and, in addition, borrowers from the Federal

ESTIMATED FARM MORTGAGE INTEREST CHARGES, FARM REAL ESTATE TAXES, AND CASH INCOME FROM FARM MARKETINGS, 1910-38

INDEX NUMBERS (1910-14=100)



*FROM FARM MARKETINGS (INCLUDES GOVERNMENT PAYMENTS)

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land banks and the Land Bank Commissioner benefited by the further reductions of interest rates below the contract rate as provided for in the Emergency Farm Mortgage Act of 1933 and subsequent legislation. Also the rates charged by private lenders declined in this period. In 1938 the average interest rate payable on all outstanding farm mortgages was about 5 percent as compared with about 6 percent in 1930 and 6.4 percent in 1923.

IN the interpretation of the trends of farm-mortgage interest charges in relation to the trends of cash farm income and farm real-estate taxes, certain characteristics of each of the series should be borne in mind. The interest series represents the amount payable by the borrower during the year, and not the amount actually paid. Some of the annual interest charges not paid when due become an addition to the mortgage debt, which may be paid later in the form of principal payments. Some delinquent interest is merely postponed and paid later. Other delinquent interest never is paid in full. Accordingly, a series showing interest paid would be somewhat different from the series shown here for interest payable, especially in periods of widespread default and in the years immediately following. It should be noted also that the interest figures used for the Federal land banks and the Land Bank Commissioner for the period 1933–38 represent the amount of interest accrued at the contract rate less the interest reduction granted borrowers for which reimbursement was obtained from the Secretary of the Treasury.

The series for cash-farm income includes direct Government adjustment, conservation and parity payments for the period 1933–38. The tax series represents levies, and in this respect is comparable with the interest series showing the amount of interest payable. It should be observed, however, that the income and tax series refer to all farms, whereas the interest series refers to mortgaged farms. This difference is especially important in periods of rapid change in the proportion of farms under mortgage. It is important also when comparisons are made of the absolute amounts in the three series.

THE total of farm-mortgage interest charges is relatively small in relation to total cash income for all farms, but the ratio of mortgage interest to cash income has varied widely over the last 30 years (table 1). In 1938 mortgage interest was 4.4 percent of total cash income as compared with

Table 1.—Estimated Amount of Farm-Mortgage Interest Charges and Cash Farm Income, 1910–38

Year	Farm-mortgage interest charges [1]	Cash farm income [2]	Percent farm-mortgage interest charges of cash farm income	Index (1910–14=100)	
				Farm-mortgage interest charges	Cash farm income
	Million dollars	*Million dollars*	*Percent*	*Percent*	*Percent*
1910	203	5,785	3.5	81	98
1911	225	5,581	4.0	90	94
1912	252	5,966	4.2	100	101
1913	276	6,251	4.4	110	106
1914	296	6,015	4.9	118	102
1915	314	6,391	4.9	125	108
1916	341	7,755	4.4	136	131
1917	378	10,648	3.5	151	180
1918	417	13,464	3.1	166	227
1919	476	14,436	3.3	190	244
1920	574	12,553	4.6	229	212
1921	653	8,107	8.1	260	137
1922	680	8,518	8.0	271	144
1923	679	9,524	7.1	271	161
1924	647	10,150	6.4	258	171
1925	612	10,927	5.6	244	185
1926	598	10,529	5.7	239	178
1927	593	10,699	5.5	237	181
1928	590	11,024	5.4	235	186
1929	582	11,221	5.2	232	190
1930	572	8,883	6.4	228	150
1931	559	6,283	8.9	223	106
1932	534	4,682	11.4	213	79
1933	483	5,409	8.9	193	91
1934	446	6,720	6.6	178	114
1935	411	7,542	5.4	164	127
1936	385	8,499	4.5	153	144
1937	370	9,111	4.1	148	154
1938	357	8,109	4.4	143	137

[1] Contract amount payable for all years except 1933–38. Interest payable on Federal land bank and Land Bank Commissioner loans for the years 1933–38, represents total interest accrued at the contract rates of interest less the amounts of interest reduction granted borrowers by these agencies for which reimbursement was obtained from the Secretary of the Treasury.

[2] Cash income from farm marketings plus Government payments.

11.4 percent in 1932, 5.2 percent in 1929, and 8.1 percent in 1921. A more significant relationship would be the ratio of mortgage interest payable to cash income from mortgaged farms. Since probably only about one-third of the farms in the United States are mortgaged (34.5 percent as of January 1, 1935), it is likely that mortgage interest in 1938 was around 12 to 15 percent of cash income for mortgaged farms. In 1932 this percentage may well have been from 30 to 35 percent of the cash income from mortgaged farms. Exact comparisons on this basis are not possible, since separate estimates of cash income for mortgaged farms have not been made.

In 1938 total interest reductions granted Federal land bank and Land Bank Commissioner borrowers for which these agencies were reimbursed by the Secretary of the Treasury amounted to almost $39,000,000, and total contract interest charges for all farm-mortgage debt, before taking account of the interest reduction, amounted to about $396,000,000 (table 2). The interest reductions granted borrowers by these two agencies thus represent a reduction of about 10 percent in the total contract interest charges on farm mortgages for 1938. For the borrowers from the Federal land banks and the Land Bank Commissioner alone the reduction is, of course, substantially greater. For these borrowers the reductions amounted to approximately 28 percent.

ALTHOUGH the contribution to the net income position of farmers resulting from the interest reduction granted borrowers amounted to only $39,000,000 in 1938 as compared with direct Government payments amounting to $482,000,000, it should be noted that the interest reductions were distributed among a much smaller group of farmers. The interest reductions are received by only a fraction of the owners of mortgaged farms, whereas the direct Government payments are paid on both mortgaged and debt-free farms. Since only about one-third of all farms are mortgaged, and since less than 40 percent of the farm-mortgage debt is owed to the Federal land banks and Land Bank Commissioner, it may be reasonable to assume that about one-seventh of the direct Government payments for 1938 were paid on farms on which these lending agencies held the mortgages. For 1939 the interest reduction granted Federal land bank and Land Bank Commissioner borrowers amounted to about $37,000,000 and Government payments amounted to $675,000,000, indicating that as compared with 1938 the interest reductions represented a relatively smaller part of the total benefit received by these borrowers than in 1938.

Table 2.—Interest Reductions Granted Borrowers on Federal Land Bank and Land Bank Commissioner Loans for Which Reimbursement was Obtained From the Secretary of the Treasury and Government Payments, 1933–39

Year	Interest reductions			Total contract interest charges on all farm mortgages [1]	Percent interest reduction of total farm mortgage interest charges	Government payments [2]
	Federal land bank	Land Bank Commissioner	Total			
	Million dollars	*Million dollars*	*Million dollars*	*Million dollars*	*Percent*	*Million dollars*
1933	1.3	----------	1.3	484.6	0.3	131.0
1934	11.1	----------	11.1	456.6	2.4	447.0
1935	18.2	----------	18.2	429.2	4.3	573.0
1936	30.6	----------	30.6	415.2	7.4	287.0
1937	32.4	3.6	36.0	405.6	8.9	367.0
1938	30.9	8.0	38.9	396.0	9.8	482.0
1939	29.4	7.3	36.7	----------	----------	675.0

[1] Contract interest charges payable (including amounts paid by the Secretary of the Treasury to reimburse the Federal land banks and Land Bank Commissioner for interest reductions granted borrowers).
[2] Direct Government adjustment, conservation, and parity payments.

Another significant comparison which can be made on a very rough basis only is the relation of the Government payments on farms mortgaged to the Federal land banks and the Land Bank Commissioner to the mortgage interest charges on such farms. For 1938 interest payable by borrowers on this debt amounted to about $102,000,000. Assuming that perhaps one-seventh of the Government payments was made on farms mortgaged to these agencies, the amount of the Government payments on these farms would be around $70,000,000. Since the mortgage-interest charges for 1939 on farms mortgaged to these agencies were slightly less than in 1938, and the Government payments for 1939 were much larger, it is possible that the Government payments for 1939 on these farms were sufficient in the aggregate to pay the reduced mortgage interest charges.

DONALD C. HORTON.

[The data on farm-mortgage interest charges in table 1 represent a revision of the Department's estimates for the entire period, 1910–38. The revision is based on the new estimates of outstanding farm-mortgage debt which appeared in the October 1939 issue of The Agricultural Situation and on new data on farm-mortgage interest rates obtained in a Nation-wide W. P. A. project sponsored by the Bureau of Agricultural Economics.]

Soybeans: New Problem

THE rapid increase in soybean production in the United States during the past 6 years has provided many farmers with a new cash crop, and other farmers with valuable hay, forage, and green-manure crops. On the other hand, the greater soybean production has materially increased the domestic surplus of edible fats and oils, and has been an important factor depressing prices of lard and cottonseed oil.

From 1924 to 1933, soybean acreage increased from about 2 million to 4 million acres; about 10 million acres were harvested in 1939. Forty-four percent of the 1939 acreage was cut for hay, beans were gathered from 42 percent of the acreage, and the remaining acreage was grazed by livestock or plowed under as green manure. Production of soybeans as beans has increased even more sharply than acreage. Approximately 5 million bushels of beans were harvested in 1924, 13 million bushels in 1933, and 87 million bushels in 1939.

In the four States where the greatest increases in soybean acreage have taken place—Ohio, Indiana, Illinois, and Iowa—soybean acreage has tended to take the place of land previously planted to oats and corn. These four States in 1939 accounted for 61 percent of the total soybean acreage and 91 percent of the beans harvested.

THE marked increase in the production of soybeans in the Corn Belt has been conditioned by several factors. These include the ability of the soybean plant to withstand drought, its relative freedom from pest hazards, its adaptability to crop rotations, the possibility of harvesting the beans with the small combine, and the fact that soybeans provide an additional source of cash income for many farmers. The necessity for finding a more profitable crop than oats, and in some cases corn, has been important in bringing about increased soybean production. In the South, where cotton acreage has been reduced considerably in recent years, soybeans, harvested mostly for hay, forage, and as a green-manure crop, also have been useful for replacement purposes.

Although the soybean is a legume, it is considered under the Agricultural Conservation Program to be soil-

depleting in the North Central and Western States when the beans or seeds are allowed to ripen and are harvested. The plant is considered nondepleting when used for other purposes. It has distinct soil-building characteristics when plowed under as a green-manure crop. Beginning in 1936, the Agricultural Adjustment Administration has encouraged this practice by including it as one basis for making conservation payments to farmers except in cases where the beans are first harvested by machinery. The use of soybeans as a green-manure crop, however, has accounted for only a small part of the total increase in soybean acreage in recent years.

SOYBEANS grown in this country, when milled, yield about 80 percent of their weight in high-protein cake and meal, useful primarily as a concentrated livestock feed and also for making vegetable glues and plastics. In addition, the domestic soybean yields 14–16 percent of its weight in edible oil, which is similar in many respects to cottonseed oil and lard.

During 1939, the crushing capacity of mills located in commercial soybean areas was expanded sharply; it is estimated that such mills are now capable of crushing 80 million bushels of soybeans annually. But making allowance for seed requirements and exports, it seems unlikely that crushings during the current season will account for more than 60 million of the 87 million bushels produced in 1939. If 60 million bushels of soybeans are crushed, approximately 2,880 million pounds of cake and meal, and 560 million pounds of oil, would be produced. Such production would be, by far, the largest on record.

Prices of soybeans during the current marketing season, which began last October, have been high considering the size of the crop being marketed. The average price received by farmers for soybeans during the first 5 months of the season (October–February) was 90 cents per bushel, nearly 35 percent higher than in the corresponding period a year earlier. Soybean-meal prices at Chicago were up in nearly the same ratio. But prices of soybean oil averaged only slightly higher than the comparatively low prices that prevailed during the first 5 months of the 1938–39 season.

INCREASED production and crushings of soybeans have intensified the problem of making profitable disposition of the growing surplus of food fats and oils produced in this country.

Production, Disposition, and Products Obtained From Crushings of Soybeans; and Production of Lard and Cottonseed Oil in the United States, Average 1924–33, Annual 1934–39

Year beginning October	Soybeans produced	Disposition of soybeans			Products obtained from crushings [2]		Lard produced [4]	Cottonseed oil produced [5]
		Used for feed or seed [1]	Exported [2]	Crushed [3]	Cake and meal	Oil		
	1,000 bushels	*1,000 bushels*	*1,000 bushels*	*1,000 bushels*	*Million pounds*	*Million pounds*	*Million pounds*	*Million pounds*
Average, 1924–33	9,760	7,357	461	1,942	94	16	2,334	1,545
1934	23,095	13,971	19	9,105	446	78	2,066	1,109
1935	44,378	15,707	3,490	25,181	1,200	209	1,267	1,164
1936	29,983	9,346	19	20,618	985	184	1,673	1,364
1937	45,272	13,594	1,368	30,310	1,432	279	1,441	1,961
1938	62,729	13,843	4,416	44,470	2,107	415	1,754	1,409
1939	[6] 87,409							

[1] Production minus quantity crushed and exported.
[2] 1924–36, Bureau of Agricultural Economics Inspection Service; 1937 to date, Bureau of Foreign and Domestic Commerce.
[3] Bureau of the Census. Production figures for cake and meal derived.
[4] Calendar year. Agricultural Marketing Service.
[5] Year beginning August. Bureau of the Census.
[6] Preliminary.

Aside from butter, for which production in most years is about equal to consumption requirements, the principal food fats and oils produced in the United States are lard, cottonseed oil, and soybean oil. The chief outlet for cottonseed oil and soybean oil is in manufactured cooking fats; hence these oils compete directly with lard. Since prices of lard, cottonseed oil, and soybean oil, during 1939, were at the lowest levels in 5 or 6 years, the hog producer and the cotton grower, as well as the soybean grower, have a vital interest in the problem of surplus disposal. Despite fairly sharp gains last September, prices of lard and cottonseed oil in early 1940 have been somewhat lower than a year earlier.

THE United States normally produces a surplus of food fats and oils for export at prevailing world prices. During the period 1935–38, this country became, temporarily, a net importer of food fats as well as of technical fats, insufficient quantities of which are produced domestically. The shift in net trade position for food fats was largely the result of the relatively small domestic production of lard that followed the severe droughts of 1934 and 1936. By late 1939, domestic production had so far recovered from the effects of droughts that the United States had returned to its former position as a net exporter of food fats and oils (excluding edible fats used in nonfood products such as soap). But in the meantime, the foreign demand for American fats and oils had undergone a marked change.

For several years prior to 1934, 25 to 35 percent of our lard was exported. Nearly one-third of the total, or about 200 million pounds, usually went to Germany. Since 1933, Germany has taken very little American lard, and it is not likely that much if any will be taken by that country in the next few years. During the past few years, moreover, American lard has met increasing competition in the United Kingdom from foreign vegetable oils and from whale oil. It seems probable, barring unforeseen events of war, that British requirements for American lard during the next few years will continue to be less than in the predrought period.

DOMESTIC lard production in 1940 will be nearly equal to production in the 10 predrought years, 1924–33, when an average of 2,334 million pounds was produced annually. With little likelihood that foreign markets will take as much lard as before 1934, the domestic market probably will have to absorb a larger-than-average quantity. On the other hand, production of cottonseed oil during the next few years is likely to continue 200 to 300 million pounds smaller than the 1,545 million pound average for the 10 marketing years prior to 1934. The reduction in cottonseed-oil supplies, together with increased domestic requirements resulting from population growth, would about offset the loss in export outlets for lard. However, soybean-oil production in 1940, and in subsequent years, is expected to total well over 500 million pounds compared with an average production of less than 20 million pounds annually during the 10 predrought years. In addition, several million bushels of soybeans will be available for export, but continued large exports after 1940 will depend upon the maintenance of the present favorable competitive position of American soybeans with Manchurian soybeans in European markets.

Although growth in population during the past 10 years has partly offset the increase in domestic supplies of lard and vegetable oils, per capita supplies of these products in the next few years probably will be much larger than they have been previously. Increased supplies per capita are likely to continue, as in 1939, to exert a depressing influence on prices of all domestic food fats and oils, and on prices of such farm products as hogs, cottonseed, and soybeans.

R. M. WALSH.

Feed-Egg Versus Egg-Feed

THE Department of Agriculture has always used the feed-commodity type of ratio for poultry products. Two feed-egg ratios are published by the Department. One of these, computed weekly, is based on wholesale egg and feed prices at Chicago. The other, computed once a month, is based on the estimated farm prices of eggs and feed as of the 15th of the month.

Both ratios show the number of dozen eggs required to purchase 100 pounds of a standard poultry ration. The ration used is composed of 62 pounds of corn, 14 pounds of wheat, 8 pounds of oats, 2 pounds of barley, 9 pounds of bran, and 5 pounds of tankage, the total equaling 100 pounds. Tankage was included instead of some other form of animal protein, such as meat scrap, because a long series of prices was not available for such a protein. This ration is not necessarily recommended for poultry producers. It was chosen because it represents a general average of feeding practice over wide areas and many years and so serves as a basis for comparing poultry feed costs during various periods.

THE Chicago feed-egg ratio is based on the following weekly average market quotations:

Eggs—Fresh Graded Firsts at Chicago.
Corn—No. 3 at Chicago.
Wheat—No. 3 Red at Chicago.
Oats—No. 3 White at Chicago.
Barley—No. 2 at Minneapolis.
Bran—At Chicago.
Tankage—At Chicago.

The farm feed-egg ratio is based on the following prices for the United States as estimated for the 15th of each month:

Eggs—Prices received by farmers.
Corn, wheat, oats, and barley—Prices received by farmers.
Bran and tankage—Prices paid by farmers.

After feed and egg prices have been obtained, the feed-egg ratio is computed by dividing feed prices by egg prices as illustrated below:

Chicago feed-egg ratio, week ended March 2, 1940:	
Cost of poultry ration per cwt.	$1.257
Price of Fresh Graded Firsts per dozen	.18
Chicago feed-egg ratio	6.98

The principal advantages of the Chicago ratio, as compared with the farm ratio, are that the ratio can be computed for a more recent period and that sometimes changes are evident in weekly data which are hidden in monthly averages. An advantage of the farm ratio is that it gives a better indication of conditions throughout the United States.

THE egg-feed ratio is simply the inverse of the feed-egg ratio, i. e., it is computed by dividing egg prices by feed prices. However, the cost of feed is usually expressed in pounds rather than hundredweights. The computation is illustrated thus:

Chicago egg-feed ratio, week ended March 2, 1940:	
Price of Fresh Graded Firsts per dozen	$0.18
Cost of poultry ration per pound	.01257
Chicago egg-feed ratio	14.3

The two types of ratios may be exemplified as follows:

For the week ended March 4, 1939, the Chicago feed-egg ratio was 6.38, indicating that it required 6.38 dozen eggs to purchase 100 pounds of poultry ration at Chicago prices. For the corresponding week in 1940, the feed-egg ratio was 6.98. The increase in the ratio indicated a less favorable situation for poultrymen than at the same time last year.

The egg-feed ratio for the week ended March 4, 1939, was 15.7, indicating that a dozen eggs would buy 15.7 pounds of poultry ration. For the corresponding week in 1940, the egg-feed ratio was 14.3. The

decrease in this ratio gives the same indication of a less favorable situation for poultrymen than at the same time last year.

THE following excerpts from letters received by the Bureau indicate some of the principal advantages of an egg-feed ratio as contrasted with a feed-egg ratio:

> 1. * * * It is more desirable to have all of these ratios [the hog-corn ratio, the butterfat-feed ratio, and the egg-feed ratio] expressed in similar form. In discussing the feed situation, one may wish to refer to all of the separate ratios and it is awkward to deal with one set upon a different basis from the others.
>
> 2. * * * It would be far easier to use a ratio that goes down when conditions are unfavorable and goes up when conditions are favorable.
>
> 3. * * * I believe that most poultrymen think of their feed requirements in terms of the number of pounds normally required in their flocks to produce one dozen eggs rather than in terms of the number of dozen eggs that 100 pounds of feed will produce.
>
> Author's Note.—If it requires 10 pounds of feed to produce a dozen eggs in a certain flock, then whenever an egg-feed ratio, based on prices paid and received by the poultryman, falls below 10, he will be receiving even less total income than his feed costs and will have nothing left to cover his other expenses. As the egg-feed ratio rises above 10, he will have more and more income left to cover other expenses.

The following excerpts indicate some of the principal disadvantages of an egg-feed ratio as compared with a feed-egg ratio:

> 1. * * * Those who are paying any attention to the feed-egg ratio have adjusted their thinking to this basis and would have to learn a new set-up * * * In matters of this sort, the inertia that comes with tradition is something that cannot be disregarded.
>
> 2. * * * Feed is an expense item and when one thinks of expenses he naturally thinks of keeping them down. As the feed-egg ratio advances, it shows that expenses are increasing and profits decreasing and that, to my way of thinking, is exactly what it should convey.
>
> 3. * * Most commercial poultrymen think of their feed in 100-pound lots and stating the ratio on the basis of pounds may cause some confusion.

WHATEVER the particular form of the ratio, its most important use is in forecasting future poultry and egg production. For example, it has been found that, on the average, a 20 percent decrease from the preceding year in the October–March feed-egg ratio has resulted in a 5 percent increase in the number of chicks on hand per farm flock the following June 1 as compared with the preceding year. Likewise, a 20 percent decrease in the July–December feed-egg ratio, on the average, has resulted in a 1 percent increase in the number of hens and pullets of laying age in farm flocks on January 1, over what would normally result from changes in the number of chicks on hand per farm flock the preceding July 1.

Feed-egg and egg-feed ratios alone can not be used to show whether egg producers are making or losing money at any one time. Many factors other than feed costs and egg prices determine the profitableness of an individual laying flock. However, the change in feed costs in relation to egg prices from one period to another is the most important factor in affecting a change in the profitableness of egg production from one year to the next. When the feed-egg ratio is high, feed costs are high in relation to egg prices, and, other things being equal, it is less profitable to produce eggs than when the ratio is low.

RICHARD J. FOOTE.

Our Changed Foreign Trade

THE present European War is producing shifts in our foreign trade quite different from those which developed during the World War. In recent months, for example, the proportion of our total exports going to Europe fell off, whereas during the World War the proportion of our exports going to Europe increased.

As a basis for interpreting the foreign trade shifts that are likely to take place during 1940 and after, there are published herewith the long-time trends in both exports and imports from 1895 to 1939 inclusive, by continents. Total exports or imports for each year were taken as 100 percent, and the proportions exported to or imported from the several continents are shown separately. The data charted for 1939 are for the 9 months January–September.

THE outstanding feature in these long-time trends is the decline in the relative importance of Europe and the rise in the relative importance of non-European countries. The dollar values for Europe as well as for all other continents were of course much larger in 1939 than in 1895, but in the case of Europe its share in the totals has declined.

In 1895 non-European countries took about 22 percent of our total commodity exports, and Europe took the remainder or close to 78 percent. By 1914 the non-European countries took 40 percent, Europe 60. During the first 2 years of the World War, 1915 and 1916, the share going to Europe increased to about 70, the share going to non-European countries declining to about 30; but in the postwar years the European and non-European proportions were restored in line with the fairly clear trend that prevailed in the prewar years. Thus, a projection of the prewar trend in the increasing importance of non-European countries called for about 50 percent of the total going to non-European countries by 1923 and 55 in 1929, and these proportions were actually established in those years. For the first nine months of 1939, the non-European proportion was 59 percent, and this too was fairly well in line with the long-time trend.

THE long-time shifts in the relative importance of the individual non-European countries is also significant. A good part of the decline in the relative importance of Europe has been taken up by an increase in the importance of North American countries, particularly Canada. South America has become more important but the greatest increase is represented by Asia and Oceania. To this area we exported in 1938 and 1939 approximately 20 percent of our total, compared with about 4 percent in 1895. The comparable figures for South America are 10 percent in recent years and 5 percent in 1895.

While it is true that the postwar trend in the rise of the non-European countries is in line with the trend established in the prewar years, that is no assurance that the trend after 1939 will also be in line with the past. Nevertheless, it is important to observe that the present emphasis on trade with South America favors a continuation of this trend. The North American countries as a group have not shown any marked upward tendency since 1913, when they took 25 percent of our total exports. In 1929 they took less than 27 percent and in 1939, 25 percent.

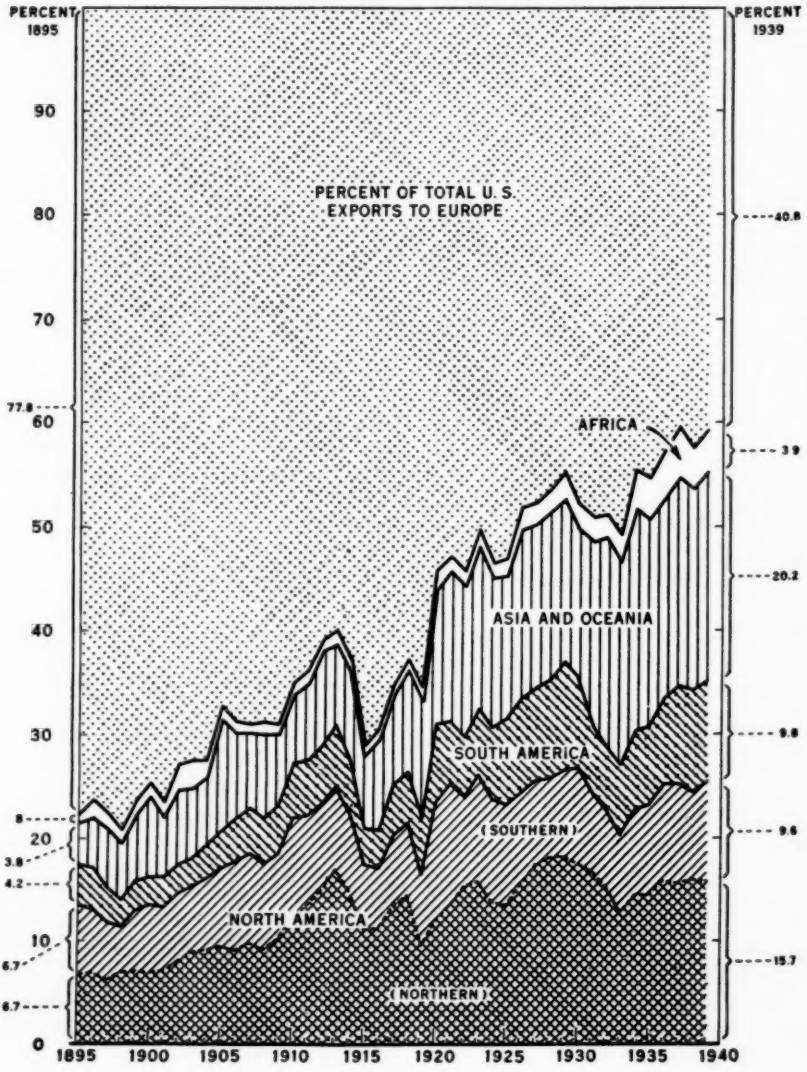
This distribution among the non-European countries suggests the question as to whether in the future, should Europe decline in importance from its 1939 position of about 40 percent to perhaps only 30 percent, the decrease will be compensated for by an increase in the relative importance of South America or Asia and Oceania. The historic momentum suggests Asia and

Oceania, but the current emphasis favors South America.

During this 45-year period when the relative importance of Europe declined from approximately 80 percent to 40, it may be observed that the proportion of agricultural exports in total exports also declined from about 75–80 percent to 25.[1] This leads to the additional observation that the shift of our trade to non-European countries is in the direction of countries requiring more of our industrial products and less of our agricultural.

[1] See Agriculture's Share in Total Exports, The Agricultural Situation, June 1938.

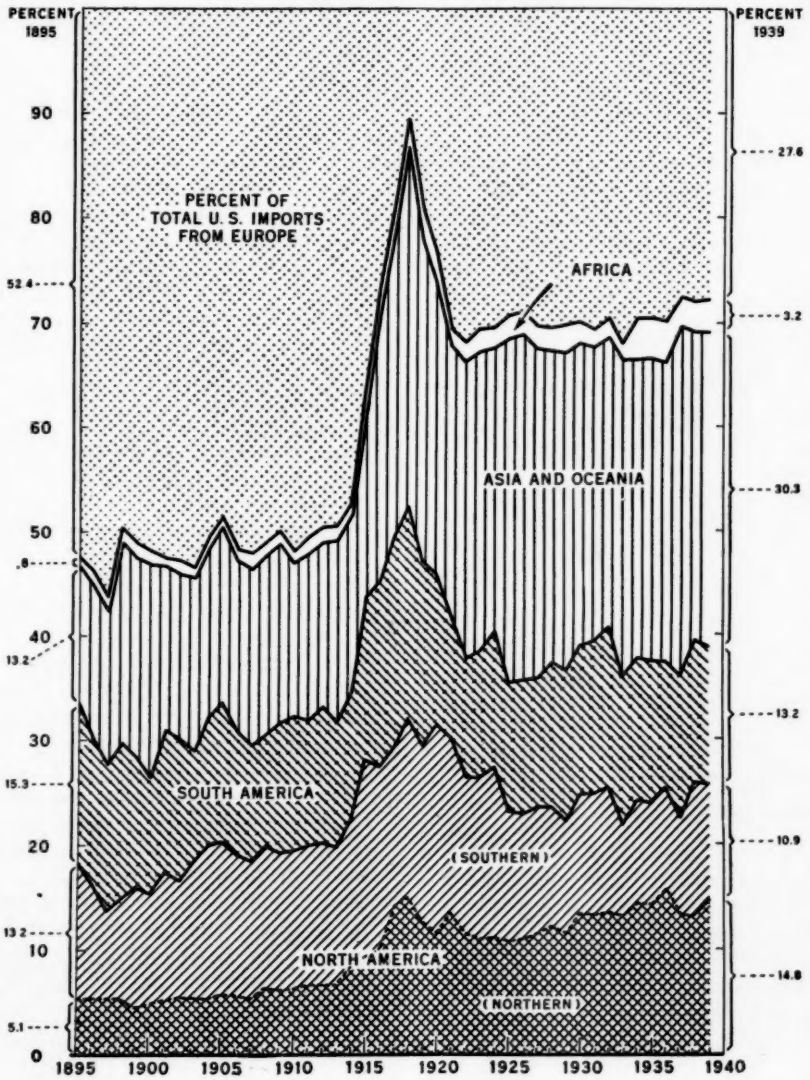
PERCENTAGE DISTRIBUTION U. S. EXPORTS BY CONTINENTS, 1895-1939



IN the case of imports, as in the case of exports, the relative importance of Europe is smaller than it used to be. In 1895, Europe supplied 52 percent of all of our imports; in 1939, 28 percent. Unlike the gradual and fairly continuous decline in the relative importance of Europe as a market for our goods, the shift in the importance of Europe as a source of our imports occurred fairly abruptly. In 1913, Europe still supplied close to 50 percent of all United States imports, but the World War reduced this to about 10 percent in 1918. After the war, from 1921 to 1936, it settled to about 30 percent, and during the past 3 years to about 28 percent.

The continents that have taken up this relative decline in United States imports from Europe are northern North America (Canada) and Asia

PERCENTAGE DISTRIBUTION U. S. IMPORTS BY CONTINENTS, 1895-1939



and Oceania. In the case of exports, the reduction in United States exports to Europe was offset by increased exports to Asia and Oceania and to a smaller degree, South America. Before the war, Asia and Oceania supplied about 15 percent of all United States imports. During the past 15 years these countries have supplied about 29 percent, a net shift of 14. Northern North America used to supply about 7 percent before the World War. In the last 10 years it has supplied about 14 percent, a net shift of 7 percent. These two areas alone account for practically all of the 21 percent decline in the relative importance of Europe from 49 percent in 1913 to 28 percent in 1939.

South America supplied us with 12 to 13 percent of our imports before the World War. In the past 5 years it has supplied about 13 percent, with a slightly declining tendency since 1932.

RECOGNIZING that continuation of the European War may alter this distribution of exports and imports by continents, it is nevertheless significant to observe what a projection of these tendencies might be like by 1945. South America took close to 10 percent of our exports during the last 3 years, and while this is no more than the proportion taken in 1928 and 1929, it might amount to about 11 percent by 1945 on the basis of a slight longtime upward trend. Exports to Asia and Oceania, however, which amounted to 17 percent in the last 3 years compared with about 12 percent in 1928 and 1929, might increase to about 22 percent by 1945.

ONE or two percent more of our total trade going to South America is probably all that is to be expected from the sort of indirect trade promotion of the past. During the last 50 years there have been only about three periods when the relative share of our total export trade going to South America expanded more than usual. In the 5-year period from 1905 to 1910 that share increased by 2 percent of the total; in each of the periods from 1924 to 1929, and 1932 to 1937, 3.5 percent. Even if during the next 5 years our trade with South America should rise by say, 30 percent above that of 1939, and total United States exports remained unchanged, this would mean increasing the South American share in the total trade from 10 percent in 1939 to 13 percent and would be in line with the best experience of the past. And even if this unusual rate of shift were to transpire over a 5-year period (total exports remaining unchanged), it would mean an increase of only about 100 million dollars in export trade with South America at the end of a 5-year period and an average annual increase over the present of perhaps about 25 million dollars—a small item in contrast with our unemployment problem. This conclusion would not be materially altered even if we made the additional assumption of an increase in total United States exports to a figure somewhere between that of 1937 and 1929.

These very moderate prospects suggested by the long-time record call for positive measures that would make them more significant. These steps are broadly suggested by what might be called the A-B-C formula for our trade relations with South America: A—standing for such aid as we can consistently give for agricultural development and rural rehabilitation; B—standing for such business and industrial help as we can render financially and technically; and C—standing for greatly stimulated cultural relations that will produce so-called invisible items in our balance of trade, such as tourist travel, which would help reduce the necessity of our taking agricultural goods in payment for our exports of industrial goods.

L. H. BEAN.

Six Years of Marketing Agreements

III: *Dairy Products*

MARKETING agreement programs have become increasingly important to the dairy industry in the 6 years they have been available under Federal legislation. At the beginning of 1940 there were 28 of these programs in effect to improve marketing conditions and returns for dairy farmers. Of this total, 26 applied to fluid milk markets, 1 was for the national evaporated milk industry, and 1 for the national dry skim milk industry. The programs were in effect through marketing agreements with and without orders, through orders alone, and through licenses which had been issued before enactment of the Agricultural Marketing Agreement Act of 1937.

Approximately 1,200,000 dairymen, including more than 125,000 fluid milk producers, are directly affected by the marketing agreement programs operating in the dairy industry. The estimated 1939 farm value of fluid milk alone under these programs exceeded $195,000,000.

THE programs for fluid milk markets command more public attention, largely because they regulate the handling of milk supplies by establishing minimum prices which handlers, or distributors, are required to pay producers. In general, each program provides for an agency to administer its terms, defines the marketing area to which the regulation applies, establishes minimum producer prices according to the classified uses made of the milk received by handlers, and provides for a method under which handlers are required to pay producers for their milk.

Classifying milk according to use by handlers with minimum producer prices for each use-classification enables dairy farmers to realize the full value which their milk has in the market. The number of classes of milk varies with each market and is determined in part by the organization of the market, by the sanitary regulations affecting the sale of milk and its products, and by the volume of milk produced for the market relative to that used for fluid purposes. For example, the order in the Boston marketing area establishes only two classes of milk, whereas that for the New York metropolitan marketing area provides for as many as nine classes.

THE principal problem in connection with the development and administration of marketing agreement programs for fluid milk is in ascertaining and maintaining sound price relationships which encourage sales and yet assure adequate supplies of milk without stimulating surplus production. This is a problem which is complicated by seasonal periods of light and heavy production. Experience has demonstrated that when sound price relationships are not maintained in a market, forces are set in motion which eventually may break down the market's program.

The structure of prices incorporated in a milk marketing agreement program represents an interpretation of the testimony and evidence presented by producers, handlers, and consumers at the public hearing. It has become evident that those programs developed through the full and intelligent cooperation of producers, handlers, and consumers are the ones most likely to meet conditions in individual fluid milk markets and best serve the public interest. The ultimate goal of regulation under milk marketing agreement programs is market stability achieved through the establishment of reasonable producer prices sufficient to enable dairymen, over a long period of time, to produce an adequate supply of the

quality milk required by the market without encouraging uneconomic shifts in production and in sources of supply.

IN order that the full benefit of the minimum class prices required to be paid by handlers is reflected to producers, each marketing agreement program provides for one of two methods for distributing returns to the farmers who supplied the milk. This is done either through a market-wide pooling arrangement or through individual-handler pools. Under a market-wide pool, the producer price is uniform since it represents a "blend" of the combined class values of all the milk received in the market by all handlers. When individual-handler pools are used, prices received by producers delivering milk to any one handler are uniform, but they may be different from those received by producers delivering milk to other handlers, depending upon differences in the utilization of milk by the various handlers. Of the fluid milk marketing agreement programs in effect 20 provide for payments to producers through market-wide pooling arrangements, and 6 for payments through individual-handler pools.

A new feature being incorporated into fluid milk marketing agreement programs is a provision for a special producer price for milk disposed of under any program approved by the Secretary of Agriculture for the sale or disposition of milk to low-income consumers, including persons on relief. This provision is included in programs for markets where, through the cooperation of municipal authorities, producers, and handlers, there is an opportunity for putting into effect a program which will enable needy families to get more milk at less than the prevailing prices.

Provisions for low-cost milk programs are included in half of the fluid milk marketing agreement programs. Low-cost milk plans are operating in the Boston and Chicago markets. The program in Boston makes available to eligible needy families approximately 65,000 quarts of milk daily at 5 and 7 cents per quart. Through the program in Chicago, the city's relief administration is able to furnish approximately 100,000 quarts a day to needy families at a cost of 4 and 5 cents per quart. Handlers who supply the milk are paid a Federal indemnity which is in addition to the amount paid for the milk by the needy. The indemnity, plus the price received from sales, reimburses the handler for the cost of the milk and the cost of

Estimated Number of Producers, Estimated Annual Volume, and Value of Milk in Markets under Marketing Agreement Programs, 1939

Market	Estimated number of producers	Estimated annual volume	Estimated total value
		1,000 pounds	*1,000 dollars*
Battle Creek [1]	280	22,953	418
Boston [3]	15,494	1,110,201	21,050
Chicago [3]	16,090	1,626,680	29,576
Cincinnati [3]	4,671	217,519	4,335
Denver [1]	1,794	[4] 147,147	2,107
Dubuque [3]	267	22,027	331
Fall River [3]	351	34,719	1,062
Fort Wayne [3]	912	44,645	771
Kalamazoo [1]	400	33,666	602
Kansas City, Mo. [3]	1,459	128,547	2,449
La Porte County [3]	290	16,239	316
Leavenworth [1]	89	[4] 9,540	152
Louisville [1]	1,489	136,575	2,483
Lowell-Lawrence [2 5]	[6] 792	54,465	1,599
New Bedford [1]	330	38,136	1,203
New Orleans [3]	2,276	105,224	2,594
New York [7]	60,176	5,008,380	102,384
Omaha [8]	2,382	100,658	1,738
Quad Cities [1]	1,194	76,868	1,189
San Diego [1]	142	[4] 90,180	1,956
Sioux City [1]	1,117	44,576	664
St. Louis [3]	4,600	333,019	6,030
Toledo [3]	2,462	133,022	2,400
Topeka [9]	223	[4] 23,000	358
Twin Cities [1]	5,737	463,856	6,955
Wichita [1]	419	[4] 44,873	754
Total	[10] 125,436	10,066,715	195,476

[1] License in effect.
[2] Marketing agreement and order in effect.
[3] Order in effect.
[4] Reported in butterfat and converted to milk equivalent.
[5] Volume and value of milk pooled.
[6] Number of producers estimated by Massachusetts Milk Control Board in 1937.
[7] Agreement and order during January 1939; order beginning July 1, 1939.
[8] License to Apr. 4, 1939; order beginning Apr. 5, 1939.
[9] Marketing agreement in effect.
[10] In addition, approximately 118,000 producers are affected by the marketing agreement program for the evaporated milk industry, and approximately 1,000,000 producers by the program for the dry skim milk industry.

bottling, pasteurizing, and delivering the milk to the distributing depots or other points. So far handlers have supplied bottling and other services for an average of under 2 cents per quart.

The special producer price for milk used in the low-cost program is lower than that established for regular fluid milk requirements of the market and higher than the price established for so-called "surplus" milk. Where the low-cost milk programs operate, they bring into use with higher returns to dairy farmers substantial quantities of milk which the producers had been selling for cream and manufacturing purposes at lower prices. At the same time, needy families are able to increase their consumption of milk and handlers have a larger volume of milk running through their plants.

BASICALLY, the type of program authorized for milk by the Marketing Agreement Act is, in many ways, similar to that carried on by cooperatives. In this respect, the marketing agreement programs provide the framework which enables producers to carry out their collective bargaining and cooperative programs more effectively. The Act itself contains provisions definitely designed to encourage these producer organizations.

Several of the prerogatives extended to cooperatives were involved in the New York [1] and Boston [2] milk order cases which were reviewed by the Supreme Court. In its decisions of June 5, 1939, the Court upheld the constitutionality of the Act and the validity of the two orders. Besides establishing the legality of Federal milk market regulation, including milk price fixing, these decisions clarified several questions which had been raised concerning prerogatives extended to cooperatives. Among these were the right of cooperative associations to vote for their members in producer referenda on the issuance of orders, the right of a cooperative to campaign during a producer referendum, and the right of a cooperative to pool all of its returns for payment to producers.

These two decisions are of far-reaching significance to the dairy industry and to the agricultural cooperative movement in general. They give greater permanency to an approach to marketing problems which farmers have sought through both the Federal and State Governments.

IN the last half-dozen years many of the States have authorized programs similar to the Federal marketing agreement programs. Nearly half the States have milk-control laws. The Marketing Agreement Act authorizes Federal-State cooperation in the development and administration of the regulatory programs. A number of States have indicated their interest in the issuance of Federal orders complementary to, or concurrent with, their own. Memoranda of cooperation in the development of programs and issuance of orders for milk have been signed by the Secretary and the authorities of five of these States. Programs in effect through joint or complementary orders include the milk markets of Fort Wayne and La Porte, Ind.; Lowell-Lawrence, Mass.; New Orleans, La.; and New York, N. Y.

There is growing evidence of closer coordination between the activities of the States and the Federal Government in dealing with producer marketing problems along the lines authorized by the Marketing Agreement Act. The Supreme Court's recent decisions on the Federal and State regulatory activities in milk markets make available, for the first time, fundamental legal guides for this type of Federal-State cooperation.

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[1] *United States* v. *Rock Royal Cooperative, Inc., et al.*, 307 U. S. 533.

[2] *H. P. Hood & Sons, Inc. et al.* v. *United States*, 307 U. S. 588.

Year and month	Industrial production (1923–25=100)[1]	Income of industrial workers (1924–29=100)[2]	Cost of living (1924–29=100)[3]	(1910–14=100)					
				Wholesale prices of all commodities[4]	Prices paid by farmers for commodities used in—[5]			Farm wages	Taxes[6]
					Living	Production	Living and production		
1925	104	98	101	151	164	147	157	176	270
1926	108	102	102	146	162	146	155	179	271
1927	106	100	100	139	159	145	153	179	277
1928	111	100	99	141	160	148	155	179	279
1929	119	107	99	139	158	147	153	180	281
1930	96	88	96	126	148	140	145	167	277
1931	81	67	88	107	126	122	124	130	253
1932	64	46	79	95	108	107	107	96	219
1933	76	48	76	96	109	108	109	85	187
1934	79	61	78	109	122	125	123	95	178
1935	90	69	80	117	124	126	125	103	180
1936	105	80	81	118	122	126	124	111	182
1937	110	94	84	126	128	135	130	126	187
1938	86	73	82	115	122	124	122	124	186
1939[7]	105	83	82	113	120	122	121	124	----
1939—February	99	79	82	112	----	----	120	----	----
March	98	79	82	112	119	122	120	----	----
April	92	75	82	111	----	----	120	121	----
May	92	75	81	111	----	----	120	----	----
June	98	80	81	110	119	121	120	----	----
July	101	80	81	110	----	----	120	126	----
August	103	83	81	109	----	----	119	----	----
September	111	86	82	115	122	123	122	----	----
October	121	91	82	116	----	----	122	126	----
November	124	93	82	116	----	----	122	----	----
December	128	93	82	116	121	124	122	----	----
1940—January	120	93	82	116	----	----	122	119	----
February	----	----	----	115	----	----	122	----	----

Year and month	Index of prices received by farmers (August 1909–July 1914=100)								Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	All groups	
1925	157	177	172	153	140	153	163	156	99
1926	131	122	138	143	147	152	159	145	94
1927	128	128	144	121	140	155	144	139	91
1928	130	152	176	159	151	158	153	149	96
1929	120	144	141	149	156	157	162	146	95
1930	100	102	162	140	133	137	129	126	87
1931	63	63	98	117	92	108	100	87	70
1932	44	47	82	102	63	83	82	65	61
1933	62	64	74	105	60	82	75	70	64
1934	93	99	100	103	68	95	89	90	73
1935	103	101	91	125	118	108	117	108	86
1936	108	100	100	111	121	119	115	114	92
1937	126	95	122	123	132	124	111	121	93
1938	74	70	73	101	114	109	108	95	78
1939	72	73	77	105	110	104	94	93	77
1939—February	66	70	78	105	116	107	91	92	77
March	66	71	81	110	116	100	88	91	76
April	67	70	82	95	114	95	87	89	74
May	72	72	85	88	112	92	85	90	75
June	73	73	93	105	107	94	83	89	74
July	66	73	80	99	107	96	89	89	74
August	64	71	70	99	101	100	90	88	74
September	83	76	73	117	117	107	102	98	80
October	77	74	73	128	112	112	108	97	80
November	79	75	66	123	107	117	117	97	80
December	87	82	65	96	101	118	97	96	79
1940—January	90	85	66	117	103	119	91	99	81
February	91	85	76	168	101	118	98	101	[7] 83

[1] Federal Reserve Board, adjusted for seasonal variation. [2] Adjusted for seasonal variation.

[3] Monthly indexes for months not reported by the Bureau of Labor Statistics are interpolated by use of the National Industrial Conference Board cost-of-living reports.

[4] Bureau of Labor Statistics index with 1926=100, divided by its 1910–14 average of 68.5.

[5] These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

[6] Index of farm real-estate taxes per acre. Base period represents taxes levied in the calendar years 1909–13, payable mostly within the period Aug. 1, 1909–July 31, 1914. [7] Preliminary.

NOTE: The index numbers of industrial production and of industrial workers' income shown above are not comparable in several respects. The base periods are different. The production index includes only mining and manufacturing; the income index also includes transportation. The production index is based on volume only, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and in workers' income, since output can be increased or decreased to some extent without much change in the number of workers.

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